IN THE CLAIMS:

Please cancel Claims 1-17, 20, and 22-35 without prejudice, and add new Claims 36-42 to the application as follows:

1.-35. (Cancelled)

36. (New) An image processing apparatus comprising:

means for obtaining an image of a predetermined scale from an input image;

means for extracting, from the obtained image, pixels in a window which corresponds to a position of an input pixel and has a predetermined size;

means for generating a random number;

means for selecting a pixel from the extracted pixels, based on the generated random number;

means for calculating a difference value between a value of the selected pixel and the value of the input pixel;

means for comparing the difference value with a first threshold value; and

means for, when the difference value is less than the first threshold value, substituting the value of the input pixel with the value of the selected pixel.

37. (New) The apparatus according to Claim 36, wherein the generated random number forms a uniform probability distribution.

38. (New) The apparatus according to Claim 36, wherein the generated random number forms a probability distribution depending on the distance from a pixel corresponding to an input pixel in the window.

39. (New) An image processing method comprising:

a step of obtaining an image of a predetermined scale from an input image;

a step of extracting, from the obtained image, pixels in a window which corresponds to a position of an input pixel and has a predetermined size;

a step of generating a random number;

a step of selecting a pixel from the extracted pixels, based on the generated random number;

a step of calculating a difference value between a value of the selected pixel and the value of the input pixel;

a step of comparing the different value with a first threshold value; and

a step of, when the difference value is less than the first threshold value, substituting the value of the input pixel with the value of the selected pixel.

40. (New) The method according to Claim 39, wherein the generated random number forms a uniform probability distribution.

41. (New) The method according to Claim 39, wherein the generated random number forms a probability distribution depending on the distance from a pixel corresponding to an input pixel in the window.

42. (New) A computer-readable recording medium recording a program for causing a computer to execute an image processing method of Claim 39.